



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,757	06/08/2001	Elizabeth Varriano-Marston	MARS93-DIV	3933

24222 7590 06/30/2005

MAINE & ASMUS  
100 MAIN STREET  
P O BOX 3445  
NASHUA, NH 03061-3445

EXAMINER
----------

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/877,757

Applicant(s)

VARRIANO-MARSTON,  
ELIZABETH

Examiner

Marc A Patterson

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-12,14,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,14,21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1772

## DETAILED ACTION

### NEW REJECTIONS

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greengrass et al (U.S. Patent No. 4,886,372) in view of Endo et al (Japanese Patent No. 9-98658).

With regard to Claims 1 and 8, Greengrass et al disclose an improved packaging (bag; column 1, line 21) for establishing optimum atmospheric conditions for respiring produce (a modified atmosphere packaging environment for fruit; column 1, lines 21 – 32) comprising a polymeric material (plastics material; column 2, lines 50 – 51) and a set of microperforations (column 2, lines 50 – 52) which are drill holes (made by pins; column 4, lines 30 – 34) on a target area on the polymeric material (a position which eliminates the possibility of product within the pack blocking the microperforation; column 2, lines 56 – 62), the microperforations controlling the optimum atmospheric conditions within specified oxygen and carbon dioxide concentrations of less than 20.9% oxygen and greater than 0.03% carbon dioxide (therefore maintaining and controlling the atmospheric conditions within this range; column 1, lines 33 – 38). With regard to Greengrass et al fail to disclose microperforations having an average diameter between

Art Unit: 1772

110 and 400 microns and providing a total oxygen flux ranging from 150 cc/day-atm to 5,000,000 cc/day-atm

Endo et al teach microperforations (micropores made by a laser; paragraph 0008) having an average diameter between 110 and 400 microns and providing a total oxygen flux ranging from 150 cc/day-atm to 5,000,000 cc/day-atm, in a packaging (Claim 1) for the purpose of obtaining a packaging that preserves freshness (paragraph 0001).

Therefore, one ordinary skill in the art would have recognized the advantage of providing for the having an average diameter between 110 and 400 microns and providing a total oxygen flux ranging from 150 cc/day-atm to 5,000,000 cc/day-atm of Endo et al in Greengrass et al, which is a packaging, depending on the desired freshness preservation afforded by the end product as taught by Kocher et al.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for having an average diameter between 110 and 400 microns and providing a total oxygen flux ranging from 150 cc/day-atm to 5,000,000 cc/day-atm in Greengrass et al in order to obtain a packaging which preserves freshness as taught by Endo et al.

3. Claims 2 – 4, 6, 9, 12, 14 and 21 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greengrass et al (U.S. Patent No. 4,886,372) in view of Endo et al (Japanese Patent No. 9-98658) and further in view of Kocher et al (U.S. Patent No. 5,919,547).

Art Unit: 1772

Greengrass et al and Endo et al disclose a packaging for produce comprising microperforations and a polymeric material as discussed above. With regard to Claim 2, Greengrass et al and Endo et al fail to disclose a polymeric material comprising polyester.

Kocher et al teach a microperforated packaging (column 3, lines 19 – 25) for produce (fruits of vegetables; column 9, lines 14 – 15) comprising polyester (column 15, line 43) for the purpose of obtaining a packaging which provides an improved shelf life (column 1, lines 30 – 31). Therefore, one ordinary skill in the art would have recognized the advantage of providing for the packaging comprising polyester of Kocher et al in Greengrass et al and Endo et al which is a microperforated packaging, depending on the desired shelf life of the product as taught by Kocher et al.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for the packaging of Kocher et al in Greengrass et al and Endo et al in order to obtain a packaging which provides an improved shelf life as taught by Kocher et al.

With regard to Claim 3, the polymeric material taught by Kocher et al is a heat – sealable (heat – weldable; column 4, lines 5 – 9).

With regard to Claim 4, the polymeric material taught by Kocher et al has a thickness in the range of 0.4 to 8 mil (column 17, lines 11 – 16).

With regard to Claim 9, the packaging taught by Kocher et al is comprised in a lid, as stated above, therefore in a semi – rigid container.

With regard to Claim 12, the film taught by Kocher et al is a gas – permeable, as stated above, and is therefore not occluded.

Art Unit: 1772

With regard to Claim 21, the microperforations taught by Kocher et al have an average diameter of 125 microns (column 17, lines 66 – 67).

With regard to Claims 6, 14 and 22, Kocher et al fail to disclose a packaging material providing a carbon dioxide transmission rate that is 3.4 to 4.0 times greater than the oxygen transmission rate. However, Kocher et al teach the selection of microperforation size depending on the desired passage of atmospheric gas, including oxygen and carbon dioxide (column 18, lines 1 – 3). Therefore, one of ordinary skill in the art would have recognized the advantage of varying the microperforation size to obtain a desired oxygen and carbon dioxide transmission rate. Therefore, the carbon dioxide transmission rate would be readily determined through routine optimization of microperforation size by one having ordinary skill in the art depending on the desired end use of the product.

It therefore would be obvious for one of ordinary skill in the art to vary the thickness in order to obtain a desired oxygen and carbon dioxide transmission rates, since the oxygen and carbon dioxide transmission rates would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kocher et al.

4. Claims 7 and 10 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greengrass et al (U.S. Patent No. 4,886,372) in view of Endo et al (Japanese Patent No. 9-98658) and Kocher et al (U.S. Patent No. 5,919,547) and further in view of Porchia et al (U.S. Patent No. 5,492,705).

Art Unit: 1772

Greengrass et al, Endo et al and Kocher et al disclose a microperforated packaging as discussed above. With regard to Claims 7 – 11, Greengrass et al, Endo et al and Kocher et al fail to disclose a microperforated packaging which is a bag which is substantially enclosed with a top seal, a bottom seal and a pair of side seals having the target area within one – quarter distance from the top seal.

Porchia et al teach the use of microperforated packaging in a bag (therefore providing top sealing, bottom sealing and side sealing; column 2, lines 50 – 60) for the purpose of controlling the weight loss of fruit stored in the bag (column 2, lines 50 – 60); the microperforations are within one quarter of the top seal (Figure 1). Therefore, one of ordinary skill in the art would have recognized the advantage of providing for the bag of Porchia et al in Greengrass et al, Endo et al and Kocher et al which comprises microperforated packaging, depending on the desired control of weight loss of fruit stored in the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a bag having microperforations within one quarter of the top seal in Greengrass et al, Endo et al and Kocher et al in order to control the weight loss of the fruit as taught by Porchia et al.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

Art Unit: 1772

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Marc Patterson 6/27/05*

Marc A. Patterson, PhD.  
Examiner  
Art Unit 1772